



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,404	02/25/2004	Sang-hak Lee	1793.1151	9807
21171	7590	06/07/2010	EXAMINER	
STAAS & HALSEY LLP			ADEGEYE, OLUWASEUN	
SUITE 700				
1201 NEW YORK AVENUE, N.W.			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20005			2621	
			MAIL DATE	DELIVERY MODE
			06/07/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/785,404	<b>Applicant(s)</b> LEE, SANG-HAK
	<b>Examiner</b> OLUWASEUN A. ADEGEYE	<b>Art Unit</b> 2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 02/25/2004.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1 - 149 is/are pending in the application.

4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 - 2, 6 - 11, 13 - 28, 30, 32, 35, 37, 40 - 44, 54 - 58, 78, 83 - 85, 91 - 98, 110 - 149 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 02/25/2004 is/are: a) accepted or b) objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-645)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No./Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No./Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims withdrawn from consideration are 3 - 5, 12, 29, 31, 33 - 34, 36, 38 - 39, 45 - 53, 59 - 77, 79 - 82, 86 - 90, 99 - 109.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 10/08/2009 with respect to claim 1, 20, 41 have been fully considered but they are not persuasive.

In re page 20 of the applicants argument, applicants argue that Inoue et al does not teach or suggest a display unit and a speaker included in the display apparatus. In response, the examiner respectfully disagrees. Fig. 1 clearly shows a display unit interface (44) also see column 5, lines 26 – 33. It is obvious to anyone of ordinary skill in the art to know that a display unit can be connected to the apparatus via the main unit display (44). Column 8, lines 13 – 18 also clearly discloses a speaker.

In re page 20 of the applicants argument, applicants argue that Inoue et al does not disclose that the controller is connected to the external storage medium. In response, the examiner respectfully disagrees. Looking at fig. 3, there is an external memory interface (45) that connects the external memory to the controller (30).

In re page 21, applicants argue that the cited Inoue reference only discloses a main unit display interface (44) but fails to disclose the actual display unit. In response, it is obvious to anyone of ordinary skill in the art to know that a display unit can be connected to the apparatus via the main unit display (44) and the Inoue reference does not have to show everything connected to apparatus (1). The Inoue et al reference showed an external memory interface (45) and an external memory (100) connected to it, The examiner does not believe that it is necessary for the reference to show each

device connected to each interface because anyone of ordinary skill in the art will know that all the interfaces will be used for connections.

In re page 22, applicants disclose that fig. 1 of Inoue et al is a broadcast receiving system and not a display apparatus. In response, the examiner respectfully disagrees because the components of fig. 1 of the invention are similar to the components of fig. 1 of the Inoue et al reference.

In re page 22, applicants argue that the Inoue reference does not teach the technical feature of setting the compression mode and the decompression mode. In response, the examiner respectfully disagrees. The Inoue reference clearly teaches that the MPEG compressed (compression mode) audio and video signals selected by the user can also be decompressed (decompression mode) (see column 7, lines 61 – 67).

In re page 20, applicants argue that the Inoue et al reference does not disclose that it is the controller that controls the compression and the decompression unit in the compression mode if the user requests the storage, as recited in claim 20. In response, the examiner respectfully disagrees. Column 7, lines 26 – 35 discloses that it is the controller (30) that controls both processes after the user's instructions also see column 8, lines 54 - 60.

In re page 23, applicants argue that the Inoue et al reference does not disclose outputting the restored video signal and audio signal using the display apparatus as recited in claim 41. In response, the examiner respectfully disagrees. As stated earlier it is obvious to anyone of ordinary skill in the art to know that a display unit can be

connected to the display interface (44) and that video signals and audio signals stored in the external memory (100) will be output through the display unit and the speaker.

In re page 24, applicants argue that the office action has only stated that claims 55 and 56 are rejected based on the grounds for rejection of claim 1 without a discussion of the features of claims 55 and 56. In response, the examiner believes that both claims are similar to claim 1 only in that limitation "housing which houses the receiving processor, controller" is additionally recited. It is obvious that each of the components of the Inoue et al reference have to be enclosed in a housing so that a user will not be exposed to any electrical shocks.

2. Applicant's arguments with respect to claims 13, 30 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 2, 20, 41, 45 – 49, 54 – 58, 64, 78, 83 - 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 6,580,462 B2) in view Well known Knowledge in the art .

As to **claim 1**, Inoue discloses a display apparatus (14) connected with an external storage medium (45) disposed external to the display apparatus, the apparatus comprising (see fig. 1):

a receiving processor (32) that receives a television broadcasting signal (see column 5, lines 1 – 13) and at least a digital video signal and/or an audio signal from the external storage medium (see column 2, lines 32 – 38)

a controller (30) (see column 5, lines 14 – 25) that, if a user commands storage of the received digital video signal and audio signal, stores the received digital video signal and audio signal in the external storage medium (see column 8, lines 25 – 60) and

a display unit interface (44) to display the received digital video signal (see fig. 1 )

a speaker to output the received audio signal (see column 8, lines 13 – 19)

a port disposed on the display apparatus, through which the received digital video signal and audio signal are transmitted from the display apparatus to the external storage medium (see fig. 1)

wherein the controller is connected to the external storage through the port (see fig. 1 and column 8, lines 37 – 44).

However Inoue does not disclose a display unit.

Official notice is taken that a display unit can be connected be connected to the display unit interface to display the received digital video signal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach a display unit to the display unit interface so that the received digital video signal can be displayed.

As to **claim 20**, Inoue discloses a display apparatus connected with an external storage medium, the apparatus comprising

a receiving processor (30) that receives a digital video signal and an audio signal (see column 8, lines 45 – 60)

a compression (see column 7, lines 61 – 67) and decompression (14) unit that if a user requests storing of the received digital video signal and/or audio signal, is set to a compression mode, and compresses the digital video signal and/or the audio signal received from the receiving processor (see column 7, lines 61 – 67), and

if the user requests reproduction of the digital video signal and/or audio signal stored in the external storage medium, is set to a decompression mode, and restores the digital video signal and/or the audio signal received from an external storage medium; an output unit to output the reproduced digital video signal and/or audio signal (see column 11, line 14 – column 12, line 55); and

a controller (30) that

if the user requests the storage, controls the compression and decompression unit in the compression mode and stores the compressed digital video signal and/or audio signal compressed by the compression and decompression unit in the external storage medium in real time (see column 9, lines 1 – 24), and

if the user requests the reproduction, outputs the digital video signal and/or audio signal from the external storage medium to the output unit through the compression and decompression unit (see column 11, line 14 – column 12, line 55).

Inoue discloses a speaker (see column 8, lines 15 - 19 and a display unit interface (44). However Inoue does not disclose a display unit.

Official notice is taken that a display unit can be connected be connected to the display unit interface to display the received digital video signal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach a display unit to the display unit interface so that the received digital video signal can be displayed.

As to **claim 41**, this is a method claim corresponding to the apparatus claim 20. Therefore, claim 41 is analyzed and rejected as previously discussed with respect to claim 20.

As to **claim 49**, this is similar to claim 1 only in that the limitation "an output unit that outputs the digital video signal and the television broadcasting signal" is additionally recited.

Inoue discloses a speaker (see column 8, lines 15 - 19 and a display unit interface (44). However Inoue does not disclose a display unit.

Official notice is taken that a display unit can be connected be connected to the display unit interface to display the received digital video signal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach a display unit to the display unit interface so that the received digital video signal can be displayed.

As to **claim 2**, Inoue discloses the display apparatus of claim 1. However Inoue does not disclose wherein the controller, according to a request from the user and when the received digital video signal and/or audio signal are stored in the external storage medium, determines whether the received digital video signal and/or audio signal is to be output through the port.

Official notice is taken that the controller is in charge of making the determination whether to move the digital video and audio from the external storage device to the display unit or vice versa via the port.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the controller to make the determination of whether the received digital video signal and audio signal is to be output through the port.

As to **claim 81**, Inoue discloses the display apparatus of claim 1, wherein the received digital video and/or audio signal are stored in the external storage medium in a real time manner (see column 8, lines 26 – 42, column 5, lines 41 – 51 and column 12, lines 37 - 43).

As to **claim 83**, Inoue discloses the display apparatus of claim 2. Inoue discloses another external memory (100). However Inoue does not disclose wherein the external storage medium is incorporated in a PDA.

Official notice is taken that the external storage medium can be incorporated in a PDA.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated an external storage device in another device.

As to **claims 84 and 85** grounds for rejecting claim 83 apply to claims 84 and 85 in its entirety.

As to **claims 54 – 56**, grounds for rejecting claim 1 apply to claims 54 – 56 in its entirety.

As to **claims 57 and 58**, grounds for rejecting claim 83 apply to claims 57 and 58 in its entirety.

As to **claim 78**, Inoue discloses a computer readable medium encoded with processing instructions for implementing a method of claim 30 performed by a processor (see column 19, lines 33 – 40).

As to **claims 91 – 98**, grounds for rejecting claims 83 – 85 respectively apply to claims 92 - 98 in its entirety.

5. Claims 6, 8 – 11, 13 – 18, 21 – 27, 30, 32, 35, 37, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 2003/0192058 A1) in view of Plourde, JR

As to **claim 13**, this claim is similar to claim 1 only in that the limitation "a controller that forms a virtual file system for the external storage medium" and "the controller stores the received digital video signal and audio signal in the external

storage medium in real time with reference to information generated on the basis of the virtual file system" is additionally recited.

Plourde discloses a controller that forms a virtual file system for the external storage medium and that the controller stores the received digital video signal and audio signal in the external storage medium in real time with reference to information generated on the basis of the virtual file system (see [067] and [068]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the virtual file system taught by Plourde to the apparatus of Inoue to provide a system that makes more efficient use of disk storage space while enabling superior quality media content presentations (see [006]).

As to **claims 6 and 8 – 11**, grounds for rejecting claim 13 apply to claims 6, 8 – 11 in its entirety.

As to **claims 14 – 18**, grounds for rejecting claim 13 apply to claims 14 - 18 in its entirety.

As to **claims 21 – 27**, grounds for rejecting claim 13 apply to claim 21 – 27 in its entirety.

As to **claims 30, 32, 35, 37 and 40** grounds for rejecting claim 13 apply to claims 30, 32, 35, 37 and 40 in its entirety.

As to **claims 110 – 149**, grounds for rejecting claim 13 apply to claims 110 – 149 in its entirety. With respect to claim 147, applicants argue that none of the cited references discloses a USB controller and an OSD generator. Inoue discloses an OSD generator

(see column 8, lines 1 - 5 and column 11, lines 51 - 62). Plourde discloses a USB controller (see [065]).

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue in view of Plourde as applied to claim 13 and further in view of Kovacevic (US 7,030,930 B2).

As to **claim 19**, Inoue in view of Plourde discloses the display apparatus of claim 13, wherein, when the digital video signal and/or audio signal are reproduced from the external storage medium, the controller displays the reproduced digital video signal and the received digital video signal together using the output unit (see column 11, line 14 – column 12, line 55).

Inoue does not disclose the output unit in a Picture-In-Picture format or in a Picture-By-Picture format.

Kovacevic discloses the output unit in a Picture-In-Picture format or in a Picture-By-Picture format (see column 6, lines 14 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added outputting picture-in-picture as taught by Kovacevic to the apparatus of Inoue in view of Plouride to provide a system for synchronizing the output of decoded audio data to the presentation of decoded digital video data (see column 2, lines 1 – 3).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUWASEUN A. ADEGEYE whose telephone number is (571)270-1711. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/ SPE Art Unit 2621  
06/01/2010

/O.A/

Application/Control Number: 10/785,404  
Art Unit: 2621

Page 13